REMARKS

Claims 1 and 4 are amended herein. New claim 21 is added. Claims 1-21 are pending and under consideration.

Rejections under 35 U.S.C. §101

The rejections are overcome by the present amendments.

Rejections under 35 U.S.C. §103

Claims 1-3 and 5-20 are rejected under 35 U.S.C. §103 as being unpatentable over Sugahara in view of Mori.

Using independent claim 1 as an example, this claim recites converting the intermediate data into printing data; determining whether an error has occurred while the intermediate data is converted into the printing data; and in response to determining that an error has occurred, converting the intermediate data into image type data and converting the image type data into the printing data.

It is noted that the determined error is while the intermediate data is converted into printing data. The Examiner's attention is drawn to FIG. 1, operations 12 and 14, of the present application.

These distinctions were previously presented to the Examiner. In response, the Examiner relies upon paragraph 115 of Sugahara, which states "when print content includes an error, as shown in the block diagram in figure 21, the intermediate data spooled in the spooler 27 is editable by the intermediate data editor 28." The Examiner also relies upon paragraph 116, which states "when the printed intermediate data has an error, the intermediate media data is editable on the data processing apparatus."

Thus, the errors that trigger the editing of the intermediate data is an error in the print content. However, the reference does not teach that this error in the print content occurs while the intermediate data is converted into printing data. For example, the error may occur after (not while) the intermediate data has been converted. Insofar as Sugahara describes printing data, it would appear that the conversion has already taken place.

Also, it is noted that according to figure 21 of the reference, editing of the intermediate data is performed by the intermediate data editor 28 before (not while) the data is converted.

The Examiner also makes reference to figures 3 and 4 of Sugahara, however, these figures do not teach the timing of the error. Instead, figure 3 simply teaches that there is intermediate data. Applicants do not dispute that Sugahara teaches the presence of intermediate data, but instead respectfully note that the reference does not teach that the determined error is while the intermediate data is converted to printing data. Figure 4 of the reference illustrates a print image of the intermediate data. Again, this figure does not supply the information regarding when the error occurs.

Furthermore, independent claim 1 recites "in response to determining that an error has occurred, converting the intermediate data into image type data."

In contrast, Sugahara teaches the intermediate data editor 28 to edit the intermediate data spooled in the spooler when print content includes an error. Sugahara, paragraph 115. However, there is no teaching that the editing includes converting the intermediate data into image type data. The Examiner relies upon the print image of figure 4 of Sugahara as corresponding to the claimed image type data. However, the print image is not generated as a result of the determining of an error. Instead, paragraph 61 of the reference states "the intermediate data will be described by using the example of the intermediate data in FIG. 3 and the print image in FIG. 4. FIG. 4 is the print image of the intermediate data in FIG. 3. The intermediate data, and the example shown in FIG. 3, consists of a pattern identifier representing that data is intermediate data, a code representing "printer waiting" or "printed", a data size, and then intermediate data body. Also, in the body, a part to be text data 42, a part to be bitmap data 44, and a part to be line data 46 are described by the print image in FIG. 4. The intermediate data displayed like a text file in FIG. 3. But, in fact, the intermediate data is a binary file."

With respect to dependent claim 3, this claim recites wherein in response to determining that an error has occurred, loading the stored intermediate data; converting the loaded intermediate data into the image type data; and converting the image type data into the printing data.

First, as discussed above, Sugahara does not teach converting the intermediate data into image type data in response to determining that an error has occurred. Instead, figure 3 of the reference simply teaches that there is intermediate data and figure 4 of the reference illustrates a print image of the intermediate data.

Furthermore, Sugahara does not teach the claimed loading of the stored intermediate data. Although paragraphs 115 and 116 of the reference describe an intermediate data editor

to edit intermediate data spooled in the spooler 27, there is no teaching of loading the stored intermediate data into the spooler 27 in response to the error determination. Specifically, paragraph 116 states "the data processing apparatus according to the above structure includes a spooling device spooling intermediate data which has not been converted into print data, and then intermediate data editor editing the intermediate data. In this manner, when the printed intermediate data has an error, the intermediate data is editable on the data processing apparatus without starting an application, and the error of the intermediate data is corrected, so that the intermediate data can be rapidly pre-printed."

Mori does not overcome the deficiencies in Sugahara, and is not relied upon to do so.

Independent claims 5, 9, 12, 15 and 19 are patentable over Sugahara and Mori at least for similar reasons as discussed with respect to independent claim 1.

Furthermore, dependent claim 7 recites the control unit comprises a data loader, which in response to the control signal, loads the intermediate data from the storage unit and outputs the loaded intermediate data to the printer driver. Although operation 154 in figure 18 of Sugahara teaches loading of all spool data, it is noted that the spool data is loaded both when the spool data is editable ('yes' in operation 152) and also when the spool data is not editable ('no' in operation 152). Thus, this reference does not teach that the loading is in response to the control signal.

Dependent claims not specifically discussed are patentable over Sugahara and Mori at least due to their dependence from respective independent claims.

Claim 4 is rejected under 35 U.S.C. §103 as being unpatentable over Sugahara in view of Mori and further in view of Tattari.

Tattari does not overcome the deficiencies in Mori and Sugahara, and is not relied upon to do so. Instead, Tattari is relied upon as teaching that the error is a General Protection Fault error. Even assuming, *arguendo*, that Tattari teaches this type of error, there is no teaching that this is the type of error that occurs in Sugahara. Instead, Tattari simply teaches that a General Protection Fault error is one type of error. However, there is no teaching that this is the particular type of error that would have occurred in Sugahara.

Furthermore, it is noted that an object of Sugahara is "to provide a print system which can perform correction without starting an original application when the printed data includes an error or when print data is desired to be corrected." Sugahara, paragraph 8. Sugahara also states that when the client is distant from the server, it is preferable that data correction is performed by the server near the printer than by a distant client. Sugahara, paragraph 7.

Tattari teaches generating a short error message, for the user. Given the context of Sugahara, the error message generated by Tattari would not have been helpful, insofar as the error is corrected without user intervention or even at remote proximity from the user. Therefore, there would have been no motivation to notify the user with an error message.

Finally, it is noted that Tattari itself teaches that such an error message is disadvantageous. Specifically "such an error message gives the user or the support advisor hardly any information about the cause of the faults or advice on how to proceed so that the situation would not recur." Tattari, 1:22-25.

New Claim

New claim 21 further clarifies features at paragraph 32 of the present specification. As noted above with respect to claim 7, Sugahara teaches loading of spool data regardless of the status of the error signal. However, as recited in claim 21, the nature of the loading depends on whether or not there is an error. Also, new claim 21 recites features of the converting not taught by the cited references.

Accordingly, allowance of claim 21 is requested.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.
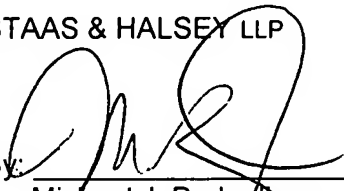
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _7-6-/0_   By: _____

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